

CLAIMS

1. An apparatus for taking up a succession of imbricated packaging bags carried by a pair of carrier tapes, said apparatus comprising:

5 two carrier tape winding spools positioned coaxially with one another; and a differential gear unit positioned between said spools, said differential gear unit being adapted to be, in use, removably connectable to a shaft of a bag loader whereby two carrier tapes can be wound up on said spools with equal tension.

10 2. An apparatus according to claim 1, wherein said spools each have a recess in a surface which faces the other spool and wherein said differential gear unit is positioned in said recesses.

15 3. An apparatus according to claim 1 or 2, wherein each of said spools is integrally formed with a bevel gear coaxial with said spool.

4. An apparatus according to claim 3, wherein said differential gear unit comprises a core and at least one satellite pinion gear attached to said core and positioned to mesh with each bevel gear.

20 5. An apparatus according to claim 4 wherein said core comprises a mating hole for mating with a shaft of a bag loader.

25 6. An apparatus according to any one of the preceding claims, wherein said spools and differential gear unit are positioned in a cassette housing.

7. An apparatus according to any one of the preceding claims, wherein said differential gear unit is removably connectable to said shaft without the use of tools.

8. A bag train comprising a succession of imbricated packaging bags carried by a pair of parallel carrier tapes and an apparatus according to any one of the preceding claims.

5 9. A bag train according to claim 8 wherein ends of said carrier tapes are each connected to a spool of said apparatus.

10. 10. A method of loading a bag train on a bag loader, comprising:
taking a bag train incorporating a succession of imbricated packaging bags on two
10 supply tapes from which they are to be removed during the loading operation, the supply
tapes having lead ends equipped with two tape-winding spools with a differential gear
unit is positioned coaxially between the spools;
connecting the differential gear unit to a shaft of said bag loader; and
driving said spools to wind up said tapes on said spools with equal tension to
15 bring each of the imbricated bags successively to a loading position where the bag is
loaded and separated from the tapes.